



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Store 9 - Marietta
Machine Id
1127
Component
Diesel Engine
Fluid
SHELL ROTELLA T 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0048267	LEC0048372	LEC0047085
Sample Date		Client Info		06 Apr 2024	14 Mar 2024	04 Mar 2024
Machine Age	hrs	Client Info		1483	11867	941
Oil Age	hrs	Client Info		400	400	400
Filter Age	hrs	Client Info		400	400	400
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	MARGINAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	18	24	13
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		3	0	2
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	12	4	7
Lead	ppm	ASTM D5185m	>40	1	0	1
Copper	ppm	ASTM D5185m	>330	2	0	4
Tin	ppm	ASTM D5185m	>15	<1	0	1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

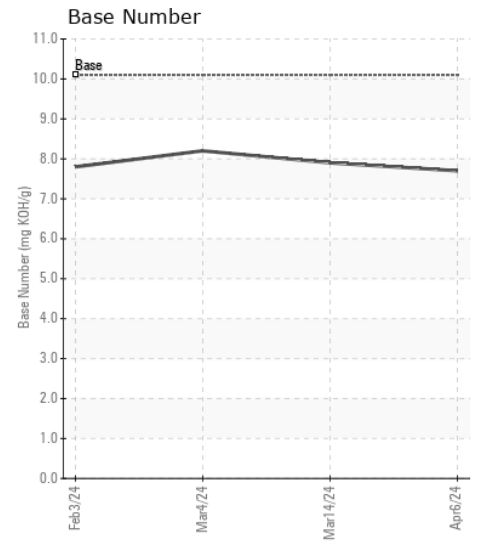
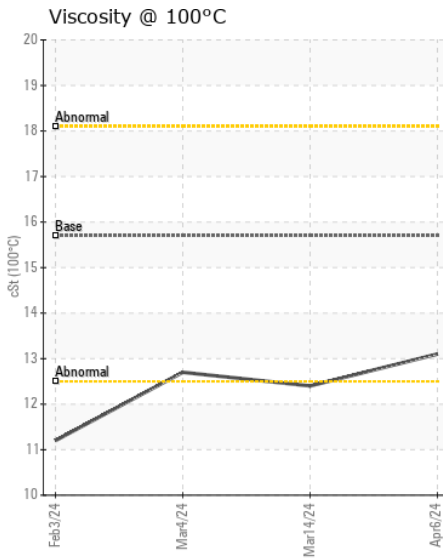
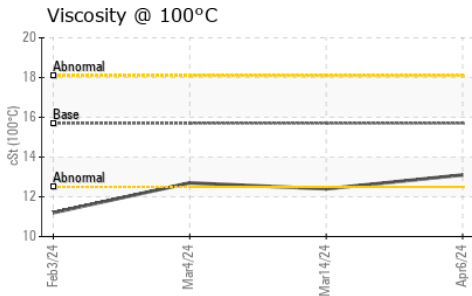
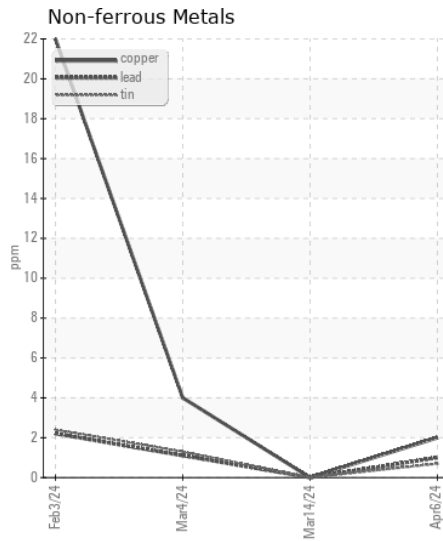
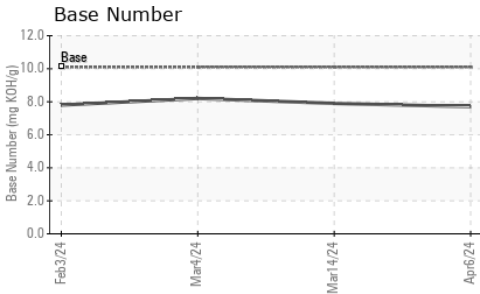
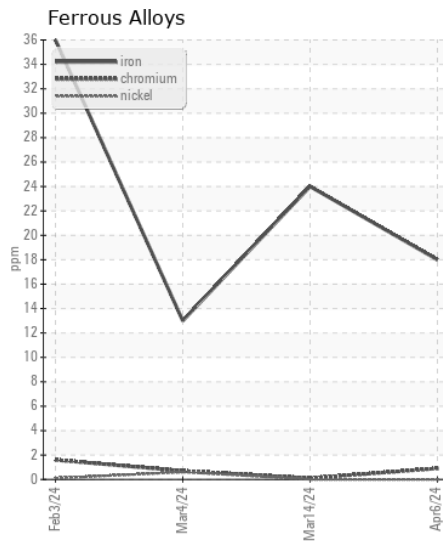
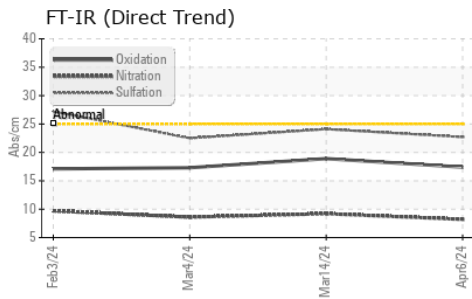
There is no indication of any contamination in the component.

Silicon	ppm	ASTM D5185m	>120	12	11	12
Potassium	ppm	ASTM D5185m	>20	23	1	14
Fuel		WC Method	>5	<1.0	▲ 2.7	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.2	9.2	8.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.7	24.1	22.5
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		3	1	2
Boron	ppm	ASTM D5185m	316	365	244	214
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	1.2	141	135	97
Manganese	ppm	ASTM D5185m		0	0	1
Magnesium	ppm	ASTM D5185m	24	760	725	691
Calcium	ppm	ASTM D5185m	2292	2116	1712	1450
Phosphorus	ppm	ASTM D5185m	1064	1286	799	725
Zinc	ppm	ASTM D5185m	1160	1503	950	873
Sulfur	ppm	ASTM D5185m	4996	3908	3100	2641
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.4	18.9	17.3
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	7.7	7.9	8.2
Visc @ 100°C	cSt	ASTM D445	15.7	13.1	12.4	12.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0048267
Lab Number : 06151739
Unique Number : 10981817
Test Package : CONST (Additional Tests: TBN)

Received : 17 Apr 2024
Tested : 18 Apr 2024
Diagnosed : 19 Apr 2024 - Sean Felton

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To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)